

Bodi Fluor™ 493/503 (4,4-Difluoro-1,3,5,7,8-Pentamethyl-4-Bora-3a,4a-Diaza-s-Indacene)

Catalog Number: 704

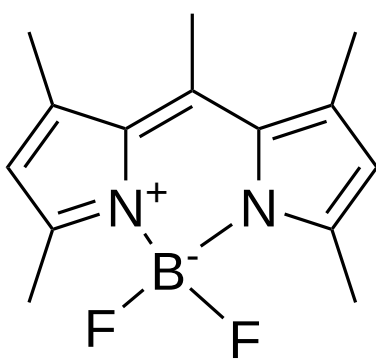
Unit Size: 10 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	262.11
Soluble In	DMSO
Chemical Structure	



Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Bodi Fluor™ 493/503 (4,4-difluoro-1,3,5,7,8-pentamethyl-4-bora-3a,4a-diaza-s-indacene) is a highly photostable, lipophilic fluorescent dye widely used to image and quantify neutral lipids in biological systems. Its neutral, nonpolar structure enables efficient partitioning into hydrophobic environments—such as lipid droplets, triglyceride stores, and other nonpolar compartments—without disrupting cellular function. The dye exhibits an excitation maximum near 493 nm and emission around 503 nm, producing a bright, narrow green fluorescence compatible with standard 488-nm laser lines and commonly used filter sets in fluorescence microscopy and flow cytometry.

The underlying Bodi Fluor™ scaffold provides a high quantum yield, sharp spectral profiles, and strong resistance to photobleaching, allowing both sensitive detection and extended imaging sessions. Because Bodi Fluor™ 493/503 is poorly soluble in aqueous media, it is typically prepared as a concentrated stock solution in anhydrous DMSO before dilution into biological samples. Staining occurs through physical partitioning rather than covalent interaction, making the dye particularly well suited for live-cell imaging of lipid droplets or tracking nonpolar phases such as oils and hydrophobic formulations. Its fluorescence is largely insensitive to pH and solvent polarity, ensuring reliable performance across diverse experimental conditions.